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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,383	07/30/2001	Stefaan Van Dyck	4532670/70200	9962

7590 05/20/2003  
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EXAMINER

OH, TAYLOR V

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 05/20/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/918,383

Applicant(s)

DYCK, STEFAAN VAN

Examiner

Taylor Victor Oh

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 3/17/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

Claims 1-3, 10-13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an inert carrier, such as silica gel, does not reasonably provide enablement for all the known inert carriers in the art. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the inert carriers unrelated to the invention commensurate in scope with these claims. Therefore, an appropriate correction is required.

The specification, while being enabling for a liquid organic acid, such as , lactic acid, propionic acid, acetic acid, butyric acid, and etc., does not reasonably provide enablement for all the known liquid organic acids in the art. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the known liquid organic acids unrelated to the invention commensurate in scope with these claims. Therefore, an appropriate correction is required.

The specification, while being enabling for a base, such as , alkali metal hydroxides , and etc., does not reasonably provide enablement for all the bases known

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in the art. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to include all the bases known in the art unrelated to the invention commensurate in scope with these claims. Furthermore, there are "foreman factors or Wands factors" regarding unpredictability because a basic base includes any heterocyclic base, any aromatic base, any alicyclic base, and a diverse scope of acyclic bases. In addition, it does not exclude any bi-functional base such as a variety of amino acids. Moreover, as the molecular weight varies substantially, therefore, not all bases are liquid and also more than routine experimentation is involved. See In re Armbruster 185 USPQ 204 (CCPA 1985) and Angstadt et al., 190 USPQ 152 (CCPA 1990).

Therefore, an appropriate correction is required.

Claims 1, 2, and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Terms " an inert carrier, mineral salts, minerals, amino acids, organic acids, surfactants, pigments ,and plant material " are written. However, each of them is vague and unclear as to the types of the corresponding term. Therefore, an appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (U.S. 5,019,148) in view of Mori et al (U.S. 5,935,635).

Moore discloses a method of producing homogeneous mineral granules of animal feed supplements by commingling acids such as acetic, propionic, citric acid (see col. 6 ,lines 36-39) and bases such as the oxides, hydroxides of the alkaline earth metals and hydroxides of alkali metals (see col. 6 ,lines 45-49) to form a mixture in an exothermic reaction (see col. 4 ,lines 8-10), during which water is evaporated from the salts formed. Furthermore, the transient fluid adhesive salt formed by the reaction of the acids and bases provide 50% or more of the final weight of the granules (see col. 6 ,lines 7-11). Also, for the coating of granules, 0.5 and 4.0 % of fine inert solids may be applied (see col. 7 , lines 8-12).

The instant invention ,however, differs from the Moore reference in that the carrier is comprised of silica gel and the weight ratio of carrier to organic acid is in the range of from 1:1 to 3:1.

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Mori et al discloses a feed additive for animal feed containing amino acids and other fermentation product and a caking preventive agent such as silica gel (see col. 3 , line 6) with a range of from 0.1 to 5 % by weight(see col. 2 , lines 26-31).

Concerning the weight ratio of carrier to organic acid in the range of from 1:1 to 3:1, In Example 1, Moore indicates that the percentage of the organic acid is 57% of the final mixture; the rest of the final product (43 %) may be considered as a carrier (see col. 8 , Example 1). Although the claimed ranges and the prior art do not overlap, concentration is well understood by those of ordinary skill in the art to be a result-effective variable especially when attempting to control selectivity of a chemical process. Furthermore, the limitation of a process with respect to ranges of pH, time , temperature, and concentration does not impart patentability to a process when such values are those which would be determined by one of ordinary skill in the art in achieving optimum operation of the process.

Moore discloses expressly the method of producing homogeneous mineral granules of animal feed supplements by commingling acids and bases along with the addition of the inert solid. And Mori does teach the feed additive for animal feed containing amino acids and other fermentation product and the caking preventive agent such as silica gel , thereby improving flowability and anti-caking tendency of the obtained granular feed. Both have shared the same utility of making the animal feed. Therefore, it would have been obvious to the skillful artisan in the art to have motivated to incorporate the teaching of Mori's anti-caking silica gel into Moore's method of producing homogeneous mineral granules of animal feed supplements because the

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addition of Mori's anti-caking silica gel to Moore's method does improve the flowability and anti-caking tendency of the obtained granular animal feed with an expectation of a similar success as shown in the Mori reference.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kalmbach (U.S. 6,238,709) discloses a granular feed nutrient supplement formed by pelletizing a mixture of minerals, vitamins, and other nutrients along with a carrier. The carrier can be animal protein products, forage products, grain products, and plant protein products.

Merkel et al (U.S. 4,700,000) discloses the preparation of calcium propionate by passing a vaporous mixture of propionic acid and water into an aqueous solution containing calcium propionate and calcium hydroxide. This compound is used as a preservative in the food stuff and in the storage of animal feed.

Kobayashi et al (U.S. 4,996,067) discloses a feed additive for ruminants, which contains an acid salt of a basic amino acid in the core, and a first coating layer which may contain a weakly acidic organic substance and a second coating layer which can contain a polymer soluble in water.

Overton (U.S. 4,988,520) discloses a method of producing an animal feed composition containing an effective amount of a water soluble form of calcium, which can be served as both the source of mineral nutrition and a binding agent.


Moore (U.S. 4,997,469) discloses a method of preparing natural nitrogenous granules by heating nitrogenous materials under alkaline conditions. The method also

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provides natural based plant food and animal feed supplement granules containing natural or synthetic additive substances.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Victor Oh whose telephone number is (703) 305-0809. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman, can be reached on (703) 308-4698. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

  
5/17/03